#### PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RELOCATION OF TRAFFIC SIGNAL EQUIPMENT (SIGNAL HEADS, MAST-ARM SIGN AND VIDEO DETECTOR AT THE INTERSECTION OF MD 231 AND J.W.WILLIAMS ROAD IN CALVERT COUNTY. MD 231 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

CONTROLLER REQUIREMENTS

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULLY ACTUATED MODE WITH THE MD 231 APPROACHES OPERATING CONCURRENTLY AND THE J.W.WILLIAMS ROAD APPROACH OPERATING ALONE.

EXCLUSIVE/PERMISSIVE LEFT-TURN LAG PHASING IS PROVIDED FOR EASTBOUND MD 231 APPROACH.

NO CHANGES ARE PROPOSED FOR THE CONTROLLER OPERATIONS.

#### PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA DISTRICT 5 ARE AS FOLLOWS:

MS. KIMBERLY TRAN ASSISTANT DISTRICT ENGINEER - TRAFFIC PHONE: (410) 841-1003

MR. JOHN MAYS ASSISTANT DISTRICT ENGINEER - MAINTENANCE PHONE: (410) 841-1002

MR. JAMES FOLDEN
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (410) 841-1004

MR. MIKE HUBER ASSISTANT DISTRICT ENGINEER - UTILITY PHONE: (410) 841-1041

MR. RICHARD L. DAFF, SR. CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: (410) 787-7630

MR. ROBERT SNYDER ASST. DIV. CHIEF. TRAFFIC OPERATIONS DIVISION PHONE: (410) 787-7631

MR. EDWARD RODENHEISER TEAM LEADER, SIGNAL OPERATIONS PHONE: (410) 787-7652

MR. EUGENE BAILEY TEAM LEADER, SIGN OPERATIONS PHONE: (410) 787-7652

CALVERT COUNTY DEPT. OF PUBLIC WORKS TERRY P. CARLSON, DIRECTOR PHONE: (410) 535-2204

# EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA

CAT. CODE NO. QUANTITY

DESCRIPTION

NONE

NONE

# EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CAT. CODE NO.	QUANTITY	DESCRIPTION
585424	62 LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
810605	1 EA	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
860265	2 EA	RELOCATE SIGNAL HEAD
800000	1 EA	RELOCATE VIDEO DETECTION CAMERA
813006	10 SF	RELOCATE SIGNS FROM EXISTING OVERHEAD STRUCTURES
811001	1 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
805115	100 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED

### EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA NONE

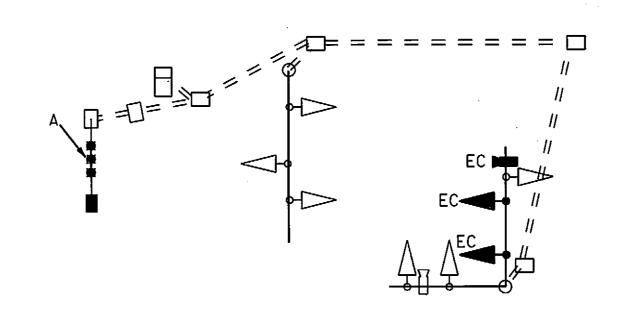
PHASE CHART PHASE 2 + 6 2 + 6 CHANGE PHASE I + 6 I + 6 CHANGE PHASE 4 4 CHANGE •R FLASHING FL/R FL/R FL/Y | FL/Y | FL/Y | FL/Y | FL/Y FL/Y OPERATION

WIRING DIAGRAM

WIRING KEY

EC EXISTING CABLE

A NONINVASIVE DETECTOR LEAD-IN



STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION

MD 231 AT J.W.WILLIAMS ROAD

CALVERT COUNTY, MARYLAND GENERAL INFORMATION SHEET

DATE: DECEMBER 7, 2010 CONTRACT NO. CA3405 76 SCALE: AS NOTED F.A.P. NO. SEE TITLE SHEET TS NO.: TS-4525A DRAWING SHEET NO. 24 OF 26 1 OF 1

O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers - Transportation Planners